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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,316	04/29/2005	Hermanus Bernardus Maria Lenting	1328-17	5300

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EXAMINER	
ARIANI, KADE	

ART UNIT	PAPER NUMBER
1651	

MAIL DATE	DELIVERY MODE
08/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/533,316	LENTING, HERMANUS BERNARDUS MARIA	
	Examiner	Art Unit	
	Kade Ariani	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-19 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-19 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 10 and 20 have been canceled.

Claims 1-9, 11-19 and 21 are pending in this application and were examined on their merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The rejection of claims 1, 2, 4-9, 12, 13 and 15-21 under U.S.C. 102(b) as being anticipated by Tzanov et al. (Enzyme and Microbial Technology, 2001, Vol. 29, p.357-362) has been withdrawn due to the applicant's amendment to the claims filed on 05/16/2007.

The rejection of claims 1, 2, 4-9, 12-21 under 35 U.S.C. 102(e) as being anticipated by Xu et al. Patent No. 2003/0041387 A1, has been withdrawn due to the applicant's amendment to the claims filed on 05/16/2007.

Applicant's arguments with respect to claims 1, 2, 4-9, 12, 13, and 15-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9, 11-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzanov et al. (Enzyme and Microbial Technology, 2001, Vol. 29, p.357-362) in view of Lang et al. (US Patent No. 6,258,590 B1, July 2001) and further in view of Ando et al. (Applied & Environmental Microbiology, Jan 2002, Vol. 68, No. 1, p.430-433).

Claims 1-9, 11-19 and 21 are drawn to a method (or treating a cellulosic grey fabric) comprising the following steps: (a) a pretreatment step in the presence of water, at a temperature of 80-100°C, the fabric is contacted with a thermostable enzyme which

degrades starch; and (b) an integrated desizing and scouring step in which, in the presence of water, at a temperature of 70°C at the most, the fabric as obtained in step (a) is contacted with an enzyme which degrades a polymeric component of the primary cell wall of cotton and an enzyme which degrades starch, the enzyme which degrades starch is an α-amylase, in step (b) the enzyme is chosen from the group of cellulase, protease and/or pectinase, the pectinase is a polygalacturonate lyase, the presence of a surfactant, pH of 7.5-9.5, a method according to claim 1, wherein the fabric obtained in step (b) is subjected to a washing treatment which is carried out at a temperature of 60-100-°C in the presence of a surfactant, a method wherein between step (b) and the subsequent washing treatment, the fabric is subjected to a treatment in which the mass transport of fabric components to be washed away is promoted, a method wherein the washed fabric is subsequently bleached, a method wherein the fabric is a woven cotton fabric, fabric manufactured according to the method of claim 1, use of a fabric as obtained using the method according to claim 1 for manufacturing textile products, a textile product manufactured from a fabric treated using the method according to claim1.

Tzanov et al. teaches a method to treat woven grey cotton fabrics (p. 357, Col.2, 2nd paragraph, Lines 2-3), fabrics are pretreated in the presence of water and a thermostable α-amylase at 70°C and pH 5.0 (p.358, Material & Methods), fabrics were scoured with an alkaline pectinase at pH 8.0 at 40°C, a polygalactorunase lyase, the presence of a surfactant (p.358, Enzymatic scouring, lines 1-8) an enzymatic desizing-scouring-bleaching process (a continuous process) (p. 361, Col.2, last 3 lines), mass transport of fabric components to be washed as fabrics were removed boiled, fabrics

were washed and dried (p.358, Col.1, last paragraph and Col.2 , 1st line), fabrics were bleached (p.358, Col. 2, 4th paragraph), textile material and textile processing (p. 357, Introduction, Col.2, Lines 12 and 15-16).

Tzanov et al. does not teach 80-100°C, vacuum treatment, and fabric is subjected for 5 minutes at the most. However, Lange et al. teaches high temperature scouring of woven cotton fabrics using a thermostable pectinase, at a temperature above 80°C, compatible with textile preparation techniques.

Moreover, at the time the invention was made, at the time the invention was made, thermostable starch hydrolyzing enzymes (α-amylases), were very well known in the art.

Also, drying via vacuum and blowing treatment were clearly very well known in the art.

Furthermore, Ando et al. teaches higher temperatures (above 70°C) are preferred for desizing (the step to remove starch from cotton fabrics) and further teaches "if the enzymes that are presently used for biopolishing of cotton products are replaced by a hyperthermostable enzyme with an optimum temperature close to 100°C, the process will be much more simple, quick and efficient than in presently employed method" (see Introduction, 1st column, lines 1-).

Therefore, in view of the above teachings, it would have been obvious to one the ordinary skill in the art to modify the method of Tzanov et al. by using thermostable enzymes. One would have been motivated to modify the method of Tzanov et al. with a reasonable expectation of success because at the time the invention was made,

thermostable α-amylases were available and, it was also very well known that using hyperthermostable enzymes would make the desizing and scouring steps much more simple, quick and efficient.

Accordingly, the invention taken as whole is *prima facie* obvious in view of the prior art.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kade Ariani whose telephone number is (571) 272-6083. The examiner can normally be reached on 9:00 am to 5:30 pm EST Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kade Ariani
Examiner
Art Unit 1651

Leon B. Lankford Jr.
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